

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (previously presented): A radio device capable of anticipating a link state as being a
5 standby link state or a connection link state, the radio device operating under a
frequency hopping scheme wherein the radio device changes frequencies
according to the link state and according to a periodic timer that defines regular
time slots, the radio device comprising:
a first register set for storing standby frequency channel parameters relating to the
10 standby link state;
a second register set for storing connection frequency channel parameters relating
 to the connection link state;
a multiplexer connected to outputs of the first and second register sets for
 selecting and outputting either the standby or connection frequency channel
15 parameters;
a link state controller connected to a selection input of the multiplexer for
 controlling the multiplexer according to the link state of the radio device;
a working register set connected to the output of the multiplexer for receiving the
 selected frequency channel parameters output by the multiplexer; and
20 a frequency channel controller connected to the working register set for
 controlling the radio device according to the selected frequency channel
 parameters;
wherein before the radio device changes frequencies from a current time slot to a next
25 time slot the standby frequency channel parameters for the next time slot and the
connection frequency channel parameters for the next time slot are stored in the first
and second register sets respectively, such that the link state controller switches the
multiplexer according to the link state of the radio device for the next time slot so that

the selected frequency parameters are loaded into the working register set.

2 (original): The radio device of claim 1 wherein the standby and connection frequency channel parameters are determined by a software interrupt service routine (ISR) for the next time slot during the current time slot.
5

3 (original): The radio device of claim 1 wherein the selected frequency channel parameters are loaded into the working register set ahead of the next time slot as indicated by the periodic timer.

10 4 (original): The radio device of claim 1 further comprising an RF device connected to the frequency channel controller for transmitting and receiving radio signals according to the selected frequency channel parameters.

15 5 (original): The radio device of claim 4 wherein the link state controller switches the multiplexer ahead of the next time slot by a predetermined RF settling time of the RF device.

20 6 (currently amended): The radio device of claim 4 wherein the radio device is designed and manufactured according to the Specification specification of the Bluetooth System system for wireless communications.

7 (original): The radio device of claim 1 wherein each link state has a different set of frequencies that are cycled through according to the frequency hopping scheme.

25 8 (original): The radio device of claim 1 wherein the link state is determined by information received from a second radio device.

9 (original): The radio device of claim 1 wherein when in the standby link state the periodic timer is generated by the radio device, and when in the connection link state the periodic timer is generated by and received from a second radio device.

5 10 (currently amended): The radio device of claim 1 further comprising another link state
and a corresponding third register set, additional link states and an additional
register set for each additional link state, wherein the multiplexer is further
connected to the output of the third register set outputs of the additional register
sets for further selecting and outputting frequency channel parameters of the
10 additional register sets third register set.

11 (original): A method for setting a link state for a radio device, the radio device
comprising a first register set, a second register set, and a frequency channel
controller, the radio device operating under a frequency hopping scheme wherein
15 the radio device changes frequencies according to the link state and according to a
periodic timer that defines regular time slots, the method comprising:
storing standby frequency channel parameters for a next time slot in the first
register set;
storing connection frequency channel parameters for the next time slot in the
20 second register set;
selecting the standby frequency channel parameters during a current time slot
when the link state of the radio device is to be a standby link state during the
next time slot;
selecting the connection frequency channel parameters during the current time slot
25 when the link state of the radio device is to be a connection link state during
the next time slot; and
inputting the selected frequency channel parameters into the frequency channel
controller prior to the beginning of the next time slot for controlling the

radio device during the next time slot.

12 (original): The method of claim 11 wherein the storing, selecting, and inputting steps are synchronized through the periodic timer.

5

13 (original): The method of claim 11 further comprising calculating standby frequency channel parameters and connection frequency channel parameters using a software interrupt service routine (ISR) and forwarding the calculated frequency channel parameters to the first and second register sets.

10